

# SEQUENCE LISTING

<110> Takaiwa, Fumio  
Takagi, Hidenori

<120> METHOD OF ACCUMULATING ALLERGEN-SPECIFIC T CELL ANTIGEN  
DETERMINANT IN PLANT AND PLANT HAVING THE ANTIGEN  
DETERMINANT ACCUMULATED THEREIN

<130> 201487/1160

<140>

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<150> JP 2003-120639

<151> 2003-04-24

<150> PCT/JP04/005938

<151> 2004-04-23

<160> 10

<170> PatentIn Ver. 2.1

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<212> PRT

<213> Homo sapiens

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Asn Phe His Leu Gln Lys Asn Lys Leu Thr Ser Gly Lys Ile Ala Ser  
35 40 45

Cys Leu Asn Tyr Gly Leu Val His Val Ala Asn Asn Asn Tyr Asp Pro  
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Ser Gly Lys Tyr Glu Gly Gly Asn Ile Tyr Thr Lys Lys Glu Ala Phe  
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| Gly | Ile | Ile | Ala | Ala | Tyr | Gln | Asn | Pro | Ala | Ser | Trp | Lys | Ser | Met | Lys |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Val | Thr | Val | Ala | Phe | Asn | Gln | Phe | Gly | Pro | Asp | Ile | Phe | Ala | Ser | Lys |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Asn | Phe | His | Leu | Gln | Lys | Asn | Lys | Leu | Thr | Ser | Gly | Lys | Ile | Ala | Ser |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Cys | Leu | Asn | Tyr | Gly | Leu | Val | His | Val | Ala | Asn | Asn | Asn | Tyr | Asp | Pro |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ser | Gly | Lys | Tyr | Glu | Gly | Gly | Asn | Ile | Tyr | Thr | Lys | Lys | Glu | Ala | Phe |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Asn | Val | Glu | Gln | Phe | Ala | Lys | Leu | Thr | Gly | Phe | Thr | Leu | Met | Gly | Arg |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Gly | Ile | Ile | Ala | Ala | Tyr | Gln | Asn | Pro | Ala | Ser | Trp | Lys | Ser | Met | Lys |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Val | Thr | Val | Ala | Phe | Asn | Gln | Phe | Gly | Pro | Asp | Ile | Phe | Ala | Ser | Lys |
|     |     |     | 115 |     |     |     |     | 120 |     |     |     | 125 |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Asn | Phe | His | Leu | Gln | Lys | Asn | Lys | Leu | Thr | Ser | Gly | Lys | Ile | Ala | Ser |
|     |     | 130 |     |     |     |     | 135 |     |     |     | 140 |     |     |     |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Cys | Leu | Asn | Tyr | Gly | Leu | Val | His | Val | Ala | Asn | Asn | Asn | Tyr | Asp | Pro |
| 145 |     |     |     |     |     | 150 |     |     |     | 155 |     |     |     | 160 |     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Ser | Gly | Lys | Tyr | Glu | Gly | Gly | Asn | Ile | Tyr | Thr | Lys | Lys | Glu | Ala | Phe |
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| Asn | Val | Glu | Gln | Phe | Ala | Lys | Leu | Thr | Gly | Phe | Thr | Leu | Met | Gly | Arg |
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 Met Ala

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agt tcc ggt ttc tct cgg ttt tct ata tac ttt tgt gtt ctt cta tta 2386  
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 Cys His Gly Ser Met Ala Gln Pro Met Gly Ile Ile Ala Ala Tyr Gln  
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| Asn   | Pro | Ala | Ser | Trp | Lys | Ser | Met | Lys | Val | Thr | Val | Ala | Phe        | Asn | Gln  |      |
| 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |            |     | 50   |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| ttc   | ggt | cct | gat | atc | ttt | gct | agc | aag | aat | ttc | cac | ctc | cag        | aaa | aat  | 2530 |
| Phe   | Gly | Pro | Asp | Ile | Phe | Ala | Ser | Lys | Asn | Phe | His | Leu | Gln        | Lys | Asn  |      |
|   |     |     |     | 55  |     |     |     |     | 60  |     |     |     |            | 65  |      |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| aag   | ctc | aca | agt | ggc | aag | att | gca | agc | tgc | ttg | aac | tat | gga        | ttg | gtt  | 2578 |
| Lys   | Leu | Thr | Ser | Gly | Lys | Ile | Ala | Ser | Cys | Leu | Asn | Tyr | Gly        | Leu | Val  |      |
|   |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80         |     |      |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| cat   | gta | gct | aac | aat | aac | tat | gat | cca | agc | ggt | aag | tat | gag        | ggt | ggc  | 2626 |
| His   | Val | Ala | Asn | Asn | Asn | Tyr | Asp | Pro | Ser | Gly | Lys | Tyr | Glu        | Gly | Gly  |      |
|   |     |     | 85  |     |     |     | 90  |     |     |     |     | 95  |            |     |      |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| aac   | atc | tac | act | aag | aag | gaa | gca | ttc | aac | gta | gag | caa | ttt        | gca | aag  | 2674 |
| Asn   | Ile | Tyr | Thr | Lys | Lys | Glu | Ala | Phe | Asn | Val | Glu | Gln | Phe        | Ala | Lys  |      |
|   | 100 |     |     |     |     | 105 |     |     |     | 110 |     |     |            |     |      |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| ctc   | aca | ggc | ttc | act | ctc | atg | gga | cgc | aag | gac | gag | ttg | aagagctctg |     |      | 2723 |
| Leu   | Thr | Gly | Phe | Thr | Leu | Met | Gly | Arg | Lys | Asp | Glu | Leu |            |     |      |      |
| 115   |     |     |     |     | 120 |     |     |     | 125 |     |     |     |            |     |      |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| taattgagaa ctagtatcgg cgtagagtaa aataaaacac cacaagtatg acacttggtg |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 2783 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| gtgattctgt tcgatatcag tactaaataa aggttacaaa cttcttaatt ttcctacttc |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 2843 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| atgccatgga tattccatta tggactatag tggacagggc cggtctatga ttttgagggc |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 2903 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| cctaggaact catcgcatg ggcctcaagc tatatataaa atttattgat atatatagac  |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 2963 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| gctaatttta cttgcaaaat gaaaacaaat acatctatat attaaattta acattcctgg |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 3023 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| taattatcaa gaaataaaat cgaccaaaat aacaatatat ttgtaacttg gaactaatat |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 3083 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| aattatztat taacttaatg aagaatagaa ccccgtcata tccattgctt cctatgaaaa |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 3143 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| gatacttctt cgggtatttc ttgatgcaaa atcataaaga acggtattaa gatcaatagt |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 3203 |      |
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| gtccaagata tccttctcga ttgagcacat agccaagcca tttaacctta tttgcgacag |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 3263 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
| ttgatctcaa atagtttttc aacaacttca attttgataa acttatttca gctgaagcta |     |     |     |     |     |     |     |     |     |     |     |     |            |     | 3323 |      |
|   |     |     |     |     |     |     |     |     |     |     |     |     |            |     |      |      |
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<212> PRT

<213> Artificial Sequence

<223> Description of Artificial Sequence: Artificially  
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35 40 45

Asn Gln Phe Gly Pro Asp Ile Phe Ala Ser Lys Asn Phe His Leu Gln  
50 55 60

Lys Asn Lys Leu Thr Ser Gly Lys Ile Ala Ser Cys Leu Asn Tyr Gly  
65 70 75 80

Leu Val His Val Ala Asn Asn Asn Tyr Asp Pro Ser Gly Lys Tyr Glu  
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<212> DNA

<213> Oryza sativa

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cataaaaggc atacaaatac aagcagccga tgatgcacac aagaaacaac acaaattgca 780
caaaacccaaa agcaaccgat gccttgagca tagagatcat gctattccca ctataaatac 840
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ataagagttc tctagcatcc atcacatagc c
931

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